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THE

BOTANICAL EXCHANGE CLUB

OF THE BRITISH ISLES.

REPORT FOR 1881.

Manchester:

PRINTED BY JAMES COLLINS & CO., KING STREET.

1882.

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REPORT FOR 1879.

Secretary and Treasurer:

CHARLES BAILEY, *F.L.S.*, Ashfield, College Road, Whalley Range, Manchester.

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NOTES ON THE PLANTS GATHERED IN 1879.

Thalictrum Kochii, Fries, and *T. saxatile*, DC. Dr. J. T. Boswell sends cultivated specimens from Balmuto, Sept., 1879, with the following note:—"These specimens are cultivated, the first from Sweden, sent by Dr. Ahlberg, of Upsal, the second from the Gogmagogs, Cambridge, collected by myself in 1863. They differ only in the fruit, which is smaller and shorter, in proportion to its length, in the Swedish plant. Unless the fruit be perfectly ripe it alters its shape in drying, so that it is almost impossible to name *Thalictra* unless one has the plants in cultivation, for by the time the fruit is quite ripe the specimens are too far gone to dry for the herbarium. I have some doubts as to the occurrence of *Thalictrum Kochii* in Britain." Prof. Babington writes:—"I do not clearly understand. Does Dr. Boswell consider Swedish *T. Kochii* as the same as my *T. saxatile?* And yet he doubts *Kochii* being a native of Britain. What I consider as *Kochii* is a very large and distinct plant from *saxatile*." Dr. Boswell subsequently adds that "*T. Kochii* is a plant closely resembling *T. saxatile*, Babington; but with smaller and rounder achenes. I have not seen any British specimens of it. It is far nearer the Cambridge (Little Trees Hill) *T. saxatile* than *T. flexuosum*. I have cultivated *T. saxatile* from roots collected in the station shown me by Professor Babington, for seventeen years, and the flowers are drooping, as in *minus*, *flexuosum*, and *Kochii*."

Ranunculus trichophyllus, Chaix. Mr. Brotherston sends two or three plants, with the following note:—"*Ranunculus trichophyllus* to *radians*. Pond at Floors, Kelso, Roxburgh, June 9 and July 3, 1879. The specimens show conclusively the connection between *R. trichophyllus*, Chaix. and *R. radians*, Revel (Hiern's Mon.). In the report of the Exchange Club for 1876, p. 6, it was named *R. Godronii* by Prof. Babington and Dr. Boswell, although Dr. Boswell named the same plant *radians* in April, 1876. In Hiern's key to the forms, the hairs on the underside of the floating leaves are given as a character of *radians*, those of *Godronii* being glabrous, while in the note referred to in B.E.C. Report, 1876, these hairs are mentioned as being a distinctive mark of *Godronii*. I should much like this point

cleared up, and for that purpose sent a similar set last year. However, whether the state with floating leaves is *Godronii* or *radians* (judging from specimens I have, named *Godronii*, it appears to me to be *Drouettii*, with floating leaves) there can be no doubt that it is *trichophyllus*, with the addition of floating leaves. In the early part of the season, in the above station, it is all *trichophyllus*, *radians* gradually taking its place as the season advances, until in July it is *all* the latter. In June, many specimens may be gathered showing very clearly the transition between the two, as in the accompanying examples." Prof. Babington considers that this is not *Drouettii*, with floating leaves. If he named it *Godronii*, last year, he was not far wrong, even though it accords well with a specimen named *radians*, by Hiern, in his herbarium. Prof. Babington does not distinguish it from *radians*, nor the two from *trichophyllus*. Dr. Boswell names it *trichophyllus*, with floating leaves, and adds, "I think Godron is doubtless right in considering *R. Godronii* (of which *radians* appears to be a synonym) as nothing more than *trichophyllus*, with floating leaves."

Ranunculus heterophyllus, Bab. Mr. Bailey sends plants thus named from Leamington, 4th June, 1879, which he takes to be the *radians* of Hiern. Prof. Babington thinks this plant to be the *R. triphyllos*, Wallr., and of Hiern, which will probably have to stand distinct, next to *confusus*. His referring it to *trichophyllus* is a mistake.

R. intermedius, Hiern. Mr. J. G. Baker sends this plant from Lyndhurst, Hampshire, October, 1879. Prof. Babington does not agree with this name, and thinks "it may be *tripartitus*, DC., of which I have a good series from near Brockenhurst, Hants, through the kindness of the Messrs. Groves. But I doubt the specimens named by Mr. Baker being different from *Lenormandi*." Dr. Boswell thinks it is *intermedius*, with the leaves less deeply tripartite than usual.

R. tripartitus, DC. Mr. Cunnack sends specimens thus named from Mullion, Helston, Cornwall, July, 1879. Mr. Baker writes, "Specimen too poor to name. Certainly not *intermedius*. True *tripartitus* unknown in Britain." Prof. Babington thinks it "is probably the real *tripartitus*, DC., not our former plant, which is *intermedius*. I had this before from Roche, in Cornwall." Dr. Boswell thinks it is "a starved specimen of *R. Baudotii*, certainly not *tripartitus*."

Ranunculus acris, L. Rev. R. Wood sends a few plants from Westward, Cumberland, September, 1879, which Dr. Boswell says is the var. *vulgatus*, from its sub-horizontal rhizome.

Fumaria muralis, Sond. Mr. James Groves sends a Fumaria from Barnes Common, which Dr. Boswell says is "*F. confusa*; the fruit is much larger than in *muralis* of Sonder, but at the same time I think *F. confusa* is but a large-fruited variety of *F. muralis*."

Diplotaxis muralis, DC., var. b. *Babingtonii*. A few plants were distributed last year as *D. tenuifolia*, by Mr. Bailey, from the beach at St. Leonards, 15th June, 1878, which ought to have been named as above; the labels should be corrected by any member who received specimens.

Cardamine dentata, Schultz. Mr. GEORGE NICHOLSON sends a supply of this plant from the banks of the Thames, May, 1879, the name of which has been confirmed by Monsieur Casimir De Candolle, from a comparison of the Kew plant with specimens in the "Prodromus" Herbarium, at Geneva. Mr. Nicholson has drawn attention to this plant in his article on '*Cardamine pratentis*, L., and its segregates,' in the 'Journal of Botany' for July, 1880, p. 202. He there describes it as affecting "boggy or damp, woody spots, and its long radical leaves are not spreading as in *C. pratensis*, but are erect or spreading, and are composed of much fewer, larger, angled, and toothed leaflets, the terminal one being generally cuneate. The flowers are white or pale lilac, and the inflorescence is more elongated than that of the other forms." Prof. Babington says this is only a form of *pratensis*, and he has seen it near Cambridge. Dr. Boswell considers this plant, and the one next named, as luxuriant and starved states of *C. pratensis*.

Cardamine allied to *Hayneana*, Welwitsch. Mr. GEORGE NICHOLSON also distributes specimens of a plant he collected between Kew and Mortlake. In the 'Journal of Botany,' Mr. Nicholson says it agrees thoroughly with Welwitsch's specimens, and only differs in its having lanceolate leaves.

Cardamine impatiens, L., from near Maplehurst, Kent, is sent by Mr. W. H. BEEBY. It is queried as extinct in Top. Bot.

Barbarea arcuata, Reich. Two or three portions of a fruiting specimen sent by Dr. R. L. BAKER, from Chesterton, Warwick, July, 1879.

Cochlearia officinalis, L. Dr. BOSWELL sends a macrocarpous form from Burntisland, Fife, June 1879.

Lepidium Smithii, Hook. Mr. G. C. DRUCE sends specimens with yellow anthers, from a railway bank, Kingsthorpe, Northamptonshire. A few of the anthers have a livid-purplish tinge, but the majority are decidedly yellow.

Viola lactea, Sm., b. *intermedia*, is sent by Mr. T. R. ARCHER BRIGGS, from waste ground in an enclosure by Roborough Down, near Plymouth, S. Devon, 16th June, 1879. Dr. Boswell supposes that this plant must be accepted as *intermedia*, but that it comes very near true *canina*.

Polygala vulgaris, b. *grandiflora*, is sent from Ben Bulben, Sligo, by Mr. S. A. STEWART, 16th July, 1879.

Silene eu-gallica (Boswell) = *S. gallica*, *L.*, *Silene quinquevulnera*, *L.*, and *Silene anglico* × *quinquevulnera*. Specimens of these plants are forwarded by Mr. J. C. MELVILL, with the following note:—"I found *S. gallica*, L. growing on Gallows Hill, Jersey, near St. Heliers, in company with the following varieties:—

S. eu-gallica, var. *rosea* } These two coalesce occasionally on the same plant.
S. quinquevulnera, L., var. *rosea* }
S. quinquevulnera, L.
S. anglico × *quinquevulnera*.
S. anglica, L.

There can be no question that the whole of these are hardly even varieties of one protean species. In no respect can they be distinguished except by the petals. *S. eu-gallica* only differs from

S. quinquevulnera in its petals being white and unspotted, and the rose variety, merging into the spotted rose variety (*S. quinquevulnera, rosea*), brings it to the typical *S. quinquevulnera*. Again, I found a form exactly intermediate between *S. anglica* and *S. quinquevulnera*, which I am not aware has been noticed before—at all events, I can find no record of it in books. It has the small petals, the lamina of which is not half so long as the claw, spotted as in *S. quinquevulnera*. The true *S. anglica* was very uncommon on this hill, *S. quinquevulnera* being the prevailing form. The branches of *S. quinquevulnera* are sometimes ascending, sometimes robust and flexuous, altogether agreeing, except in the petals, with the description of *S. anglica* given in English Botany, vol. ii. In Guernsey, *S. anglica* is more common, and in no way differs from English specimens, while *S. quinquevulnera*, with no intermediates, occurred sparingly near Vale Castle. I am sure, however, that in the London Catalogue, *S. anglica* ought to be altered to vars. b. and c. of *S. gallica*, instead of, as now, separating them." Dr. Boswell considers the fruiting peduncles too long for true *gallica*, and would call it *anglica*, growing in a dry situation.

Stellaria media, With., var. Three plants sent by Rev. E. F. Linton, from Lowestoft, Suffolk, 29th May, 1879, having three stamens, and considered by him to be near *Boreana;* but Dr. Boswell states that they tend nearer to var. *neglecta*.

Arenaria serpyllifolia, L., b. *leptoclodos*. Mr. Charles Bailey sends this variety from Llandudno, 18th September, 1879, as new to the county; it is pretty plentiful in waste places, growing with *sphærocarpa*.

Arenaria ciliata, L. From King's Mountain, Sligo, 18th July, 1879. A good supply is sent by Mr. S. A. Stewart, who writes:—"This plant seems to be either very rare or local on Ben Bulben proper, as for two days I searched for it in vain on that mountain. It occurs in considerable abundance on rocks on the east side of that mountain, some three miles to the south-east of Bulben. Our plant is denser and rougher, with leaves more bluntly spathulate and more strongly ciliate than Continental examples in my herbarium." Prof. Babington writes:—"Probably we have all confounded King's Mountain and Ben Bulben. I do not recollect finding it on the hill I was first taken to as the latter, but on the hill which is continuous with it, on the other side of a ravine."

Spergula arvensis, L. = *S. sativa*, Boenningh. From Kew, July, 1879; and *Spergula vulgaris*, Boenningh. From a cornfield, Petersham, Surrey, 23rd July, 1879. Both these Spergulas are sent by Mr. George Nicholson, and the members are referred to his paper in the "Journal of Botany," for January, 1880, p. 16, for notes on their distribution. Mr. Nicholson there states that "*S. sativa* has minutely punctate, margined seeds, and in a living state can be distinguished by its decidedly viscous, dull grey-green leaves and branches; on the other hand, in *S. vulgaris* the seeds are obscurely margined, or totally devoid of wing, and beset with club-shaped papillæ, generally quite black in fully-matured seeds. When growing, the latter is conspicuous on account of its light grey-green leaves, altogether brighter looking and less viscid than the former plant." Professor Babington says the Kew plant is *S. arvensis*, Reichenb.; and Dr. Boswell names the Petersham plant *S. arvensis* var *vulgaris*, as he understands it.

Spergularia marginata, Boswell. Sent by Mr. CHARLES BAILEY, as new to county 48, from the muddy flats of the estuary near Barmouth Junction railway station, 21st July, 1879. This is what Prof. Babington and the Swedes call *Lepigonum marinum*. Prof. Babington holds strongly to *Lepigonum* being the proper generic name.

Montia fontana, L., b. *rivularis*, E.B. From walls of a dripping spring at Tycoch, near Barmouth, 22nd July, 1879. New to county 48. Sent by Mr. CHARLES BAILEY.

Malva sylvestris, L, var., with conspicuously hairy carpels; from the banks of the Thames, at Mortlake, Surrey, 20th October, 1879. Sent by Mr. GEORGE NICHOLSON, with the note that he can find no mention of any such variety in any of the floras he has consulted, most of which lay stress, for the specific distinction, on the carpels being glabrous.

Trifolium scabrum, L. Dr. BOSWELL sends a large state of this species, due to the wet season, from between Burntisland and Pettycur, Fife, July, 1879.

Trifolium suffocatum, L. Mr. A. BENNETT sends this from the North Denes, Great Yarmouth, where it occurred sparingly, August, 1879. It has been previously recorded for the South Denes.

Trifolium procumbens, L. Dr. R. L. BAKER and Mr. H. BROMWICH send, under the name of *T. agrarium*, L., plants from railway banks, Milverton, Warwickshire, July, 1879, which Dr. Boswell would call *T. procumbens*, which is *T. agrarium* of some authors, but not of the Linnean Herbarium.

Vicia Orobus, DC. Moss Hill, Hawick, Roxburgh, July, 1879. New to county 80. Collected by Mr. A. WAUGH, and communicated by Mr. A. Brotherston.

Fragaria elatior, Ehrh. Sent by Mr. H. BROMWICH, from a wood at Barford, Warwickshire, June, 1879. Prof. Babington is not very satisfied with the name; Dr. Boswell thinks it correct.

Rubus Idæus, L., b. *Leesii*, Bab. Sent by Mr. BROMWICH, from a bog at the Woodloes, near Warwick, a station first pointed out in the Report for 1875, p. 14. Prof. Babington says the plant is even more curious than the specimens show.

Rubus affinis, W. & N. is sent Mr. J. HARBORD LEWIS, from a lane-side, north-west of Windle Moss, S.W. Lancashire, 15th September, 1879. Prof. Babington thinks it is correctly named, but the leaves are very bad. Rev. AUGUSTIN LEY sends a plant from rough pastures, Rhydiear, Herefordshire, 11th September, 1879, which Prof. Babington calls *discolor;* Mr. T. R. Archer Briggs thinks it "*R. rhamnifolius*, just the plant referred to as *argentatus* in British Rubi, p. 87."

Mr. LEWIS sends a *Rubus*, which he considers near to *thyrsoideus*, from Billinge Lane, Billinge, S.W. Lancashire, 10th September, 1879. Prof. Babington says this plant is an ally of *rhamnifolius*. Mr. Baker thinks it is *affinis*.

Rubus cordifolius, W. & N., var. Sent by Mr. J. G. BAKER, from Kew, Surrey, August, 1878. Prof. Babington says, "this may be the *cordifolius* of Baker, as he names it so. I have a specimen from Llanberis, which is marked doubtfully *rhamnifolius*, just like this; but if it is a form of the *rhamnifolius* of W. & N. may be doubted."

Rubus incurvatus, Bab.; also from Kew, by Mr. BAKER, 3rd August, 1878. Professor Babington does not accept this name, considering the plant another of the doubtful allies of *rhamnifolius*.

Rubus imbricatus, Hort. Sent unnamed by Mr. J. HARBORD LEWIS, from Dale Lane, S.W. Lancashire, 13th August, 1879. Prof. Babington writes:—"This seems to be a plant which I have rather doubtfully placed to *imbricatus*."

A *Rubus*, from a lane off Park road, Poolstock, near Wigan, S.W. Lancashire, 26th August, 1879, is sent by Mr. J. H. LEWIS, which Prof. Babington calls *ramosus*, approaching very near to *imbricatus*.

Rubus discolor, W. & N. Dr. BOSWELL sends a specimen from Kingcausie, Kincardineshire, September, 1879, with the remark that this species is very rare in the east of Scotland.

Rubus Salteri, Bab., b. *calvatus*, Blox. Sent by Dr. JOHN FRASER and Mr. JAMES E. BAGNALL, from the Appleby road, Twycross, Leicestershire, 6th September, 1879. Mr. Bagnall also sends what he thinks is the same plant, from Buckswell, Warwickshire, September, 1879. He writes that "it occurs in two or three places in the county, and that it seems to prefer old sand quarries for its habitat."

Mr. LEWIS sends a specimen which he considers near *R. calvatus*, from the main road by Moor Hall, Aughton, S.W. Lancashire, 19th August, 1879. Prof. Babington writes "There is not a single perfect terminal leaflet, a part very much wanted here. Is it the *atrorubens* of Bloxam? The panicle is very like and the leaves seem possibly the same."

Mr. J. HARBORD LEWIS sends a *Rubus* from a hedge, Dale Lane, Kirkby. S.W. Lancashire, 13th August, 1879, which he thinks to be near *affinis* or *rhamnifolius*. Prof. Babington names it *carpinifolius*. Mr. Baker says:—"Looks to me *affinis*, mixed with *umbrosus*."

Rubus macrophyllus, Weihe, a. *umbrosus*, Arrh. Delf, west of the railway station, Kirkby, S.W. Lancashire, 1st September, 1879. Sent by Mr. J. H. LEWIS, thus named. Prof. Babington thinks this is *carpinifolius*. Mr. Briggs is doubtful about *umbrosus* being correct. though possibly so, but the specimens are very unsatisfactory.

Rubus macrophyllus, Weihe, d. *amplificatus*, Lees. Sent by Mr. J. E. BAGNALL, from Twycross, Leicestershire, 6th September, 1879 (Co. 55). Also, from hedges at Old Park, Warwick, September and October 1879, from Dr. R. L. BAKER and Mr. H. BROMWICH. Also, from Solihull, Warwickshire, September, 1876, by Dr. JOHN FRASER. Prof. Babington says, "the specimen issued by Bloxam, with this name, has felted leaves; not so that of Mr. Bagnall. Former specimens from Bloxam have no felt on the leaves, and may well be the same as the plant from Mr. Bagnall, although the leaflets are very much larger in that from Bloxam. That from Dr. Fraser seems correct, and also that from Mr. Bromwich. I think Dr. Baker's plant is true *macrophyllus*, but it is a very bad specimen."

Rubus macrophyllus, Weihe, e. *glabratus*. Dr. EYRE DE CRESPIGNY sends this species from two stations in Middlesex, viz., in lane leading from Hampstead Heath to Fortune Green, and from Highgate Wood, August, 1879. Prof. Babington thinks it is

Schlechtendalii, but the specimen is very poor. Mr. Baker considers it typical *macrophyllus*.

Rubus mucronulatus, Bor. Collected by Miss J. B. FORTESCUE, at Kingcaussie, Kingcardineshire, September, 1879, and sent by Dr. Boswell, with the following note:—"This is the commonest bramble on Lower Deeside; usually the flowers are white, both there and in Fife; but Miss Fortescue's specimens now sent have pale pink petals, and so agree with Prof. Babington's description in his "British Rubi."

Rubus Sprengelii, Weihe. From a pond-side west of Simonswood Lane, S.W. Lancashire; Mr. J. HARBORD LEWIS, 13th July, 1879. Mr. Briggs agrees with this name. Mr. Baker thinks it *macrophyllus*, and Prof. Babington var. *Borreri*.

Rubus Bloxamii, Lees. Highgate Wood, Middlesex, July, 1878; Dr. EYRE DE CRESPIGNY. Prof. Babington says this is very near, if not exactly, the *rhenanus* Müll, which is a form of *Bloxamii*.

Rubus plicatus W. & N. teste Prof. Babington. From enclosure, Beacon Hill, Trelleck, Monmouthshire, 13th September, 1879, by Rev. A. LEY. Prof. Babington reports that "these specimens from Mr. Ley are certainly not correct, although I am stated to have named them so. This is a glandular plant. It seems to be *Hystrix*, if we may judge from the barren stem. Do the leaves and panicle belong to the same plant? I much doubt it."

A *Rubus* is sent by Mr. J. HARBORD LEWIS, from a hedge-row at the entrance to the Powder Works, Cunscough, S.W. Lancashire, 19th August, 1879, which Prof. Babington names *Hystrix*.

Rubus Hystrix, Weihe. Sent from four stations:—Appleby Road, Twycross, Leicestershire (Co. 55), 6th September, 1879, by Mr. JAMES E. BAGNALL; Braggeridge Wood, Stafford, August, 1879, by Dr. JOHN FRASER; Harrow Weald Common, Middlesex, August, 1879, by Dr. EYRE DE CRESPIGNY; and from a delf, Kirkby, S.W. Lancashire, 1st September, 1879, by Mr. J. HARBORD LEWIS. Prof. Babington confirms the name for Dr. de Crespigny's and Mr. Lewis's plants, and believes Mr. Bagnall's is correct; but he names Dr. Fraser's plant *rosaceus*.

Rubus Radula, Weihe. Dr. EYRE DE CRESPIGNY sends a plant named *Rubus Koehleri*, Weihe, c. *pallidus*, from waste ground left of the Paddington Canal towards Sudbury, Middlesex, August, 1879, which Mr. Briggs names *R. Radula*. Prof. Babington says it "has nothing to do with *Koehleri*, but apparently *Radula*, but the panicle is very far from satisfactory."

Rubus Koehleri, Weihe, var. *cavatifolius*, Müll. teste Prof. Babington. Sent by Rev. AUGUSTIN LEY, from a field side, Trelleck, Monmouthshire, 13th September, 1879.

Rubus diversifolius, Lindl. Mr. LEWIS sends a plant from Coalpit Lane, north of Newton-in-Mackerfield, S.W. Lancashire, 26th August, 1879, to which he, doubtfully, gives this name, but Prof. Babington does not agree; he thinks it much more like *Lejeunii*.

Rubus Lejeunii, Weihe. From near Bentley Park, Warwickshire, October, 1879, by Mr. JAMES E. BAGNALL, who writes that "the specimens sent thus named have been confirmed this year by Prof. Babington. The plant is abundant here, but I was unable to get a supply of good typical specimens, owing to the abnormal season

having caused the plants to be poorly developed. Very few barren stems were to be found."

Rubus saltuum, Focke. Dr. Eyre de Crespigny sends a *Rubus* under the name of *R. fusco-ater*, Weihe, from Harrow Weald Common, Middlesex, August, 1879, which Mr. Baker names *saltuum*, Focke = *Guntheri*, Bab. Mr. Briggs says this is certainly *R. Guntheri* "Weihe" Bloxam, = *R. saltuum*, Focke. Prof. Babington does not accept it as *fusco-ater*, but his specimen has not a perfect terminal leaflet.

Rubus foliosus, Weihe. Sent from Ansley Coalfield, Warwickshire, August, 1879, by Mr. J. E. Bagnall. Prof. Babington says it is no doubt correct.

Rubus glandulosus, Bell., b. *hirtus*. Sent by Dr. Eyre de Crespigny, from a hedge in a meadow below Hampstead Heath, Middlesex, August, 1879. Mr. Baker thinks this is a form of *pallidus* less hairy than usual. Prof. Babington pronounces *hirtus* correct.

Rubus Balfourianus, Blox. Shirley, Warwickshire. Sent by Dr. John Fraser, 20th September, and Mr. James E. Bagnall, 29th September. 1879, from the same locality. Name confirmed by Prof. Babington.

Rubus corylifolius, Sm., b. *conjungens*. From a hedge at St. Weonard's, Herefordshire, September, 1879, by Rev. Augustin Ley. Also confirmed by Prof. Babington. Mr. Briggs asks, "Why not the type, *sublustris?*"

Rubus corylifolius, Sm., d. *purpureus*, Bab. Minworth, Warwickshire, September, 1879. Sent by Mr. James E. Bagnall, with the following note:—"Specimens from the bushes from which these specimens have been collected were named for me, in 1871, by the late Rev. Andrew Bloxam, as *Rubus concinnus*, Baker; but, as I could see no difference between this and what I considered to be *R. purpureus*, Bab., I sent specimens this year to Prof. Babington, labelled *R. purpureus*, and this name was confirmed by him. The plant is remarkably abundant in the Minworth district, often to the exclusion of all other forms. I also noticed it in abundance in the hedges at Twycross this year (1879), and believe it to be the plant named *R. concinnus*, Baker, and distributed by the late Mr. Bloxam, from that district. The bushes in the Appleby road, Twycross (from which I gathered my specimens), pointed out by Mr. Bloxam, had been cut down this year." Prof. Babington writes:—"My specimen from Mr. Bloxam's 'set' of 1876 is poor, but I agree with Mr. Bagnall in believing this to be the same plant, and correctly named *purpureus*."

Mr. J. Harbord Lewis sends from a hedge opposite the powder works, Cunscough, S.W. Lancashire, 19th August, 1879, a *Rubus*, which he thinks is near *fusco-ater*. It is considered by Mr. Baker to be *cæsius*. Prof. Babington thinks it is his *althæifolius*.

Rubus cæsius, L. var. a. *agrestis*. Sent by Rev. Augustin Ley, from railway banks, St. Devereux, Herefordshire, 16th September, 1879. Confirmed by Prof. Babington.

Rubus cæsius, L. var. a. *umbrosus*, fide Prof. Babington. From Drayton Bushes, Warwickshire, July, 1879, by Mr. James E. Bagnall. Prof. Babington says this is the same as *agrestis*.

Dryas octopetala, var. *pilosa* Bab. Limestone rocks, Blackhead,

County Clare, 12th May, 1876; and *Dryas octopetala* var. *depressa* Bab. Limestone rocks, Ben Bulben, County Sligo, 16th July, 1879. Both these forms are sent by Mr. S. A. STEWART, who writes that the Ben Bulben plant "is a smaller plant than var. *pilosa*, and very glandular. The flowers are small with sepals shorter and broader. The Clare plant differs from the type in the absence of glands on the leaves, and in being more hairy. It is a large-flowered conspicuous form and very abundant. The Ben Bulben plant seems rather scarce, and I regret that I have so few specimens to send to the Club." Mr. Baker considers these two forms to be alike. Prof. Babington accepts them as the vars. *a.* and *b.* of his Manual.

Rosa involuta, Sm., a. *Sabini.* Sent by Mr. J. HARBORD LEWIS from a hedge at Hoylake, North Cheshire, 11th August, 1879.

Rosa involuta, Sm., d. *Robertsonii* Baker. Sent by Mr. JAMES GROVES from a hedge near Kingston, Surrey, 19th July, 1879.

Rosa involuta, Sm., i. *Wilsoni* Borrer. Mr. J. H. LEWIS sends this species from the banks of the Menai Straits, Bangor, Carnarvonshire. Collected by Mr. H. S. FISHER, July, 1877, September, 1879.

Rosa hibernica, Sm., *glabra.* From a hedge at Great Meols, North Cheshire, 22nd August, 1877. Sent by Mr. J. HARBORD LEWIS.

Rosa mollis, Sm. Sent by Dr. BOSWELL, from Dour Waterworks, Fife, August, 1878.

Rosa tomentosa, Sm. Narrow lane from the Paper Mills, to Moel-y-parc, near Caerwys, Flintshire; Mr. J. H. LEWIS.

Rosa tomentosa, Sm. e. *sylvestris* Woods. This species is sent from three counties:—From Chesterton, Warwick, September, 1879, by Dr. R. L. BAKER. From the banks of the Menai Straits, Bangor, Carnarvonshire, 25th July, 1871, by Mr. J. H. LEWIS. Rev. W. MOYLE ROGERS sends it from Trusham, S. Devon, 15th July, 1879, along with a form with less glandular leaves from Haldon Hill, S. Devon, 22nd July, 1879. Mr. Briggs considers the Chesterton plant *scabriuscula*, Sm., from the comparatively small number of glands on the underside of the leaves.

Rosa micrantha, Sm. A rose is sent with this name, queried, by Mr. J. H. HARBORD LEWIS, from a lane at Pensby, North Cheshire, 9th August, 1876. It is named by Mr. Baker *sylvestris.*

Rosa sepium Thuill. Hedges between Glynde and Lewes, Surrey, July and October, 1879. Sent by Mr. J. H. A. JENNER as "new to county; in quantity, and perfectly wild. See Journal of Botany for December, 1879."

Rosa canina, L., d. *senticosa* Achar. Hedge at Hoylake, North Cheshire, 11th August, 1879. Sent by Mr. J. H. LEWIS; first pointed out to him by Mr. Fisher.

Rosa canina, L., f. *biserrata* Mérat. Rev. W. MOYLE ROGERS sends this from Trusham, S. Devon; in leaf, 3rd May; in flower, 15th July, 1879.

Rosa canina, L., m. *tomentella.* Mr. LEWIS sends this with the name queried from a hedge, Willaston, North Cheshire, 26th August and 6th October, 1876. Mr. BAKER received two forms under the same label, one *obtusifolia*, the other *tomentella.* Mr. T. R. ARCHER BRIGGS also finds two plants, and writes:—"The one collected in August would do well for *frondosa*, were it not for having some of the

peduncles slightly aciculate. The other collected in October has the leaves decidedly doubly serrated, with gland-tipped teeth."

Rosa tomentella, Léman, var. *affinis*, Rau, fide Dr. Christ. Sent by Mr. GEORGE NICHOLSON from the banks of the Ure, Ripon, Yorkshire, 6th October, 1879.

Rosa tomentella, Léman, var. *Nicholsoni*, Christ in litt. Mr. NICHOLSON also sends this variety from the same locality as var. *affinis*, with the following note :—"Differt a typo aculeis tenuibus, dentibus profundioribus, *fere simplicifolius;* planta magis glabrata, sepala dorso hispidis, fructu ovalis seu rotundato." This rose collected by my brother on the left banks of the Ure near Sharon, Yorkshire, has been named as above by Dr. Christ. It has a certain *frondosa* look, as that form is understood in Baker's Monograph, but differs from it in its prickles, glandular peduncles, &c."

Rosa canina, L., var. *celerata*. Mr. ANDREW BROTHERSTON sends this species from Spylaw, Kelso, Roxburgh, 17th September, 1879, from two plants, with the note that there were "several more of the same. The plants are much dwarfer and more erect in habit of growth than any of the forms of *R. sub-cristata*, or other *caninæ* growing along with it."

Rosa stylosa, Desv. var. *evanida*, Christ in litt. Sent by Mr. GEORGE NICHOLSON from Ham Common, Surrey, 8th September, 1879, with the following remarks :—"Foliolibus biserratis minoribus, pœne glabrata, sed pedunculis hispidis et stylo elongato stylosæ Transitus ad stylosa versus caninam biserratum. Last year I noticed a number of bushes of this Rose on Ham Common. It is strongly characterized by its numerous flowers, its globose fruits and small leaves. Mr. BAKER was good enough to examine fresh specimens, and as he had not met with the form before, I carefully went through all the specimens of this section in the Kew Herbarium, without finding anything near it. I thereupon sent the plant to Dr. Christ of Basle, who pronounced it new and kindly forwarded the above name and diagnosis. A somewhat erect bush from 5 to 8 ft. high. Prickles on barren stem 5/8 in. long, and the scar about as deep. Leaves of the barren shoot about 4 in. long, with 7 leaflets, the terminal one 1 1/4 in. long by about 5/8 in. broad, hairs nearly confined to ribs and petiole; the serration double, teeth acute. Flowers from 6 to 12 or more in a cluster, the peduncles clothed with weak aciculi and setæ. Calyx tube globose, naked, sepals little more than 1/2 in. long. Other bushes from the same locality agree thoroughly in all respects with that just described, with the exception of their having sepals hispid at the back."

Rosa leucochroa, Desv. Sent by Rev. W. MOYLE ROGERS from Trusham, S. Devon, July and December 1st, 1879. First noticed in Exch. Club Report, 1875, page 16.

Rosa arvensis, Huds, var. b. *bibracteata*, Bast. From a hedge at Trusham, S. Devon, 13th October, 1879. Also a single specimen from Yetminster, Dorset, 24th September, 1879. Sent by Rev. W. MOYLE ROGERS.

Pyrus pinnatifida, Sm., a. *semipinnata*, Bosw. Sent from a shrubbery at Yethohm, Roxburgh, June 26th, 1879, by Mr. A.

BROTHERSTON ; also from a garden tree at Alstonfield, Staffordshire, by Rev. W. H. PURCHAS. Both plants are accepted by Dr. Boswell as what he intends by the above name.

Callitriche verna, L. A number of plants thus named are sent by some of the members. A plant collected by Mr. W. H. BEEBY, from a pool near Partridge Green, W. Sussex, 17th June, 1879, is believed by Dr. Boswell to be *C. vernalis*, the specimens sent being too imperfect to be sure; Mr. Briggs thinks it may be *pedunculata*. The Rev. W. H. PURCHAS sends specimens from near Warslow, N. Staffordshire, 18th September, 1879, which Dr. Boswell supposes to be *vernalis*. Dr. Boswell says that "it differs from *S. hamulata* in the sub-obovate fruit, shorter styles, and more persistent bracts, but it may be *C. hamulata* after all, in which case *C. verna*, *vernalis* is unknown to me." Dr. R. L. BAKER'S plants, from Kirby-le-Soken, Essex, July, 1879, are named by Dr. Boswell *C. platycarpa*, and he thinks to this name must be referred the Rev. AUGUSTIN LEY'S plants, viz., *verna*, from Orcop, and *obtusangula*, from Allensmore, Herefordshire. Mr. T. R. Archer Briggs reports that the Kirby-le-Soken plant is certainly not *verna*, but *platycarpa* or *obtusangula* ; he thinks the latter. He does not think the Rev. A. Ley's plant *verna*, while that from Rev. W. H. Purchas is similar to a Plymouth plant which he supposes to be *verna*, but hardly knows how to separate from *hamulata*.

Helosciadium repens, Koch. Collected in August and September, 1879, by Dr. F. ARNOLD LEES, in the "Line-ponds," Skipwith common, South-east Yorkshire. Dr. Lees gives the following note:—"This plant—abundant enough in the shallow and muddy ponds named—is not the *repens* figured in Eng. Bot. ; nor does it seem, in the ponds and neighbouring ditches, to pass either into that or ordinary *nodiflorum*. It is a strikingly procumbent and widely creeping plant, bearing very much the same relation to E.B. *repens* as *Ranunculus eu-reptans* does to *pseudo-reptans*. It does not seem to perfect its seeds ; after swelling to about half the size of the ripe cremocarps of *H. inundatum*, they wither and drop off. It perpetuates itself solely by its creeping stems which root at each node, and, when broken off, each length of stem that has a leaf tuft upon it seems able to grow. The primary root, and each node, bear a tuft of long-stalked leaves, with lobed or deeply cut pinnules and an umbel of flowers upon a common peduncle, which is quite as long as the leaves, and, like them, appears to be radical, from springing directly from the rooted portion of stem. Each rooting node when detached produces stolon-like stems on each side, that in their turn root and produce leaf-tufts and umbels. The common peduncle is always involucrate, but the number of the pedicellar bracts is not always precisely the same as there are rays in the umbel, although they generally agree." Dr. Lees thought it might be the var. *longiped-unculatum* of Schultz, but on seeing the notice of it in Schultz's "Archives" he found that this name could not be applied to the Yorkshire plant. It will be as well to give the original description of *H. nodiflorum*, var. c. *pedunculatum* from the "Archives," 1855, pp. 135-138 :—"(*H. repenti-nodiflorum*, F. Schultz, autrefois ; *H. repens*, John C. Syme, herb. societ. botan. Lond., 454 !). Tige très-longue,

(plus d'un mètre)), couchée (nageant probablement sur l'eau): feuilles très-longues, pinnules très-larges, un peu plus profondément dentées en scie et ça et là lobées ; ombelles plus longuement pédonculées ; pédoncules presque toujours (ou presque tous) plus longs que les ombelles ; involucre principal souvent mais pas toujours présent." . . . "J'ai reçu de Londres la var. c. en deux mauvais échantillons (dont l'un complète pourtant l'autre), sous le nom de *H. repens*, Koch. Ils ont été recueillés aux environs d'Edimbourg." Schultz gives the following description of *repens*:—"Helosciadium repens (Koch, DC., à l'exclusion de la var. b. de sa Fl. fr.) se distingue de l' *H. nodiflorum* par des *tiges couchées dans toute leur longueur, rampantes, radicantes à tous les nœuds*, par des *feuilles* dressées et formant avec la tige un angle droit, à *pinnules* toujours plus larges, ovales-arrondies, inégalement dentées en scie, ou lobées, *à dents aiguës* à *ombelles* toujours pédonculées, dont les pédoncules sont toujours plus longs que les ombelles et sont avec celles-ci redressées verticalement et forment avec la tige un angle obtus ; *involucre principal*, ayant *toujours des folioles*, en même nombre (4 à 6) que les rayons *et placées tout autour en cercle*." Prof. Babington says, "The *repens* of Engl. Bot., 1431, is a form of *nodiflorum*. The plant sent seems to be the *repens* of Koch, Schultz, &c. I have it in Schultz Herb. Norm., 481 ; Billot Fl. Gal. et Germ. exsicc., 1201 ; Wirtg. Pl. Crit,, 596 ; and apparently Fries. Herb. Norm., xiii., 42. Lange also sent it from Finland, and Leresche from Lausanne. I do not think this is the *longipedunculatum*. It has the general involucre of *repens*, not of *nodiflorum*. I have seen *repens* with long flower stalks, and should call this by that name." Dr. Boswell writes: "This is not the plant of Schultz, but is *H. repens*, as is shown by the well-developed involucre, while in *H. longipedunculatum* it has seldom more than two or three leaves ; but this character is so variable, that I do not see that it is possible to separate *longipedunculatum* from *repens*, even as a variety."

Œnanthe fluviatilis, Coleman. Mr. Bailey sends the foliage only of this plant, from the canal at Navan, County Meath, 15th September, 1879. Not recorded for District 5 in Cyb. Hibern.

Ligusticum scoticum, L. Some specimens sent by Mr. H. Halcro Johnston, who reports it as common on the sea shore at Orphir, Orkney, 11th August, 1879.

Meum Athamanticum, L. Mr. A. Brotherston sends as new to County 80, one plant of this species from dry hilly pastures, Howpasley, Roxburgh, 21st June, 1879.

A *Galium* is sent by Mr. Bolton King from wet meadows by the Thames at Old Windsor, with the following note :—"Mr. H. C. Watson has examined specimens of this, and thinks it may be the *diffusum* of Hooker = *cinereum* of Smith ; but he is very doubtful about it." Prof. Babington thinks it is a form of *G. erectum*, while Dr. Boswell thinks it *G. Bakeri*.

Centaurea nigra, L. *radiata*. Sent by Dr. Boswell from Peterculter, Aberdeen, September, 1879, with the following note :—"Frequent on Lower Deeside. I have never seen it in the South of England where the radiate form belongs to var. *decipiens*. The nearest approach to radiate *C. nigra genuina* about London is one with all the florets lengthened. This form occurs in Fife, where I

have not met with the truly radiate state of *C. nigra*." Prof. Babington writes that "Dr. Boswell is correct. This is not the *decipiens* of the S.W. of England."

Chrysanthemum inodorum, L. var. b. *maritimum*, Pers. Mr. BAILEY sends what he takes to be typical specimens of this variety from the sandhills on the shore of Conway Bay, to the south of Llandudno, 17th September, 1879. Prof. Babington believes it to be *Matricaria inodora*, b. *salina*. Dr. Boswell writes that "it is quite similar to specimens which were named *maritimus* by Schultz (Bip.), which I sent him by the hands of the late Dr. Seeman."

Diotis maritima, Cass. Mr. J. GROVES and Mr. BOLTON KING send this from the sea shore near Christchurch, S. Hants, September, 1879.

Senecio crassifolius, Willd. (fide Mr. H. C. Watson) non *S. vernalis* Wald. & Kit., nec *S. vulgaris hibernica* Boult. Root from Mr. H. C. Watson's garden, originally from Cork, Ireland. Mr. A. BENNETT sends cultivated specimens thus named, respecting which Prof. Babington writes:—"This is the same as I have from Mr. A. G. More (1867) and Mr. J. Carroll (1853) from Cork. I have doubts about this being *S. crassifolius*, judging from specimens so named from Schultz-Bipont., and Billot 579. Also from the 'Unio Itineraria.' I am not able to give it a name. It seems to be the same as the Cornish plant (Report 1875, p. 19), and so cannot well be a hybrid as supposed by Mr. Carroll." Dr. Boswell says that this plant is "*S. vernalis* W. & K., *S. vernalis*, var *hibernica*, mihi olim. Afterwards, I suggested the name, *S. crassifolius* to Mr. Watson, to whom I sent a specimen from the seed of which he raised the plant. It differs from *S. crassifolius* in being, especially when young, more hairy, in having the leaves dentate between the large lobes, the middle ones with much more deeply-toothed auricles, and the anthodes smaller with more cylindrical involucres, and the pappus caducous. But no doubt *S. vernalis* and *S. crassifolius* are very closely allied, if, indeed, they be not forms of one species."

Hypochœris glabra, L. var. b. *Balbisii*, E.B. Sent by Mr. F. J. HANBURY from a rough field near the Chequers, between Deal and Sandwich, 24th June, 1878.

A *Taraxacum* is sent by Mr. F. J. HANBURY from Dartford Heath, 4th May, 1878, which Mr. Baker thinks is *lævigatum*. Dr. Boswell thinks it is certainly *erythrospermum*, with which Mr. Briggs and Prof. Babington agree.

Crepis biennis, L. Mr. J. COSMO MELVILL sends a few plants from a clover field at Delamere, Cheshire, where it occurred in 1878. The following year it was not to be found, the field having been sown with wheat.

Crepis succisæfolia, Tausch. Sent by Mr. ALEXANDER BROTHERSTON from a densely wooded dean at Holydean, near Bowden, Roxbugh, 27th August, 1879, and from a wood near Walkerburn, Peeblesshire, 13th August, 1879. At Holydean it occurred in considerable quantity on the drier parts, while *C. paludosa* was abundant in the wet ground.

Hieracium Pilosella, L. var. b. *pilosissimum*, Fries. Sent by

Mr. F. STRATTON from cliffs, Freshwater, Isle of Wight, 25th September, 1879.

The Rev. E. F. LINTON sends a *Hieracium* from Scout's Scar, Kendal, 5th July, 1875, which Mr. Baker thinks is *anglicum*, and Dr. Boswell names *H. pallidum*, var. *crinigerum*; the latter adds the following note:—"This is the *H. cinerascens* of British botanists; but not, I think, of Jordan, which is much nearer *H. murorum* than to *H. pallidum*."

Hieracium cæsium Fries. From steep banks of the Tees at Langden Beck, Teesdale, S. Durham, 2nd August, 1879. Dr. BOSWELL believes this plant to be rightly named *cæsium* as applied by British authors; but that it is not the *H. cæsium* of Lindberg's 'Hieracia Scandinavia exsiccata;' he expects Lindberg would call the Teesdale plant a form of *H. murorum*.

Hieracium vulgatum, Fries, var. *rosulatum* E.B. ed. iii., non *H. rosulatum*, Lindberg, 'Hier. Scand. No. 117.' Sent by Dr. BOSWELL from Burntisland, Fife, July, 1879, with the following remarks:—"This is the common form of *H. vulgatum* in Scotland and the north of England. The specimens now sent had fuscous styles, but it also occurs with yellow styles. The leaves are always narrower, and thinner in texture, and less numerous on the stem than in the form of *H. vulgatum*, common in the south of England."

Hieracum strictum, Fries, and *Hieracium Dewari* Boswell. Dr. BOSWELL sends these species with the following note:—"I send a few cultivated specimens of these to show the great difference in the fully developed inflorescence—the *H. strictum* from Hobbister, Orphir, Orkney, the *H. Dewari* from Glen Quay, Glen Devon, Perth, cultivated in Balmuto Garden. A curious result of cultivation is that both become nearly glabrous in the open ground; while in pits in a cool green-house they retain their hairiness—showing of how little specific importance characters drawn from pubescence are in this genus."

Hieracium crocatum, Fries. Sent by Mr. S. A. STEWART from basaltic cliffs, Cave Hill, Belfast, 15th September, 1879, and by Dr. BOSWELL from Corby Den, Kingcaussie, Kincardineshire, September, 1879.

A *Hieracium* sent by the Rev. E. F. LINTON as *crocatum* from Glen Lochray, Perthshire, 13th August, 1878, is thus referred to by Dr. BOSWELL:—"It is I believe a stunted specimen of *H. corymbosum* or possibly *H. strictum*. I have the greatest difficulty in distinguishing these two plants, if indeed they be two, but the reticulation of the underside of the leaves agrees better with that of the specimens of *H. corymbosum* than of those of *H. strictum* in Lindberg's 'Hieracia Scandinavia exsiccata,' though the panicle is less compound than is usual in *H. corymbosum* of the same size."

Hieracium boreale, Fries, var. Dr. BOSWELL sends a variety from Deeside, opposite Kingcaussie, Aberdeenshire, September, 1879, with the following note:—"A form with the upper and lower leaves less dissimilar thon usual. Specimens from this station in my herbarium are named "*H. gothicum*," though afterwards I rightly named them *H. boreale*. Mr. Brotherston says his specimens had yellow styles, those now sent had livid styles; but I have come to the

conclusion that the colour of the style is not to be depended upon as a specific character."

Pyrola secunda L. Rev. AUGUSTIN LEY sends from the Wynd Cliff, Monmouthshire, some plants collected at the end of June, 1879, by Mr. B. M. Watkins. This is a very southern station for this species, as Mr. Watson gives York (County 65) in 'Topographical Botany' as its southernmost county.

Verbascum virgatum With. Mr. CHARLES BAILEY sends a single specimen from a plant growing opposite the police barracks, Adrigole Harbour, Bantry Bay, Co. Cork. 11th September, 1879. Not recorded for District 1 in Cybele Hibernica; but it cannot be considered native where seen.

Verbascum nigro × *pulverulentum.* Rev. E. F. LINTON sends a few specimens from a single plant from Sprowston, Norwich, 8th August and September, 1879, with the note that he transplanted the root "in April, from a field into the garden, and which rose in very graceful proportions to the height of six feet. The only likeness to *nigrum* that I noticed was in the purple hairs of the filaments, and in the large radical leaves."

Linaria Pelisseriana, Mill. Mr. A. BENNETT sends a single specimen from Mount Fiquet, St. Brelade's, Jersey, collected by Mr. J. Piquet. This appears to be a different station from the one near St. Peter's Barracks.

Euphrasia officinalis near *tetraquetra.* Mr. CUNNACK sends a plant so named from Kynance Cove, Cornwall, June, 1879. Mr. Baker considers this a small flowered form of the *nemorosa* subspecies, but too robust for *gracilis.* Dr. Boswell says:—"A robust form of *E. officinalis*, *genuina.* Var. *tetraquetra* is unknown to me by name, and I cannot say whether it belongs to that form or not." Mr. T. R. Archer Briggs says it is "not marked like I have seen *tetraquetra* at Thurlestone, Devon, but a form coming between the true plant and one of the common forms of *E. officinalis.*"

Mentha citrata. Ehrh. Mrs. E. A. LOMAX sends this from Lamorna, near Penzance, collected by Mr. Wm. Curnow, August, 1879. Prof. Babington writes:—"Hardly glabrous enough to please me; I should call it *M. aquatica*, var." Dr. Boswell reports:—"Calyx-teeth too hairy for normal *M. citrata*; still I think it may fairly bear that name, but the agreeable scent which distinguishes it from *hirsuta* is lost in the dried plant, so I cannot feel sure about it."

Mentha sativa, L., b. *paludosa*, E. B. Mr. H. BROMWICH sends this from a ditch at Honiley, Warwickshire, August, 1878. Prof. Babington says there is no doubt this is a form of *sativa*, but he does not know what is meant by *paludosa* given as a form of *sativa* in Lond. Catalogue. Mr. T. R. Archer Briggs thinks it may do for Baker's variety *paludosa*, but the uppermost whorls are too much separated for the plant to agree with *M. paludosa*, as figured in Sole's work Dr. Boswell names it *M. sativa genuina.*

Mentha gracilis, Sm., b. *Cardiaca*, E. B. Sent by Mr. H. BROMWICH from a heath at Haseley, Warwickshire, September, 1877. Thought not to be *Cardiaca* by Prof. Babington, according to Exch. Club Report for 1877–8, page 9; and he thinks he should refer this plant to *gentilis.* Dr. Boswell confirms the name *Cardiaca*,

and adds: "It is *M. gentilis* of Smith, Eng. Bot., ed. i., but not *M. gentilis* of E. B., ed. iii. I had the plant in a fresh state, sent me by Mr. Bromwich."

Calamintha menthifolia, Host. b. *Briggsii*. Mr. H. Bromwich sends a plant so named from Hatton, Warwickshire, September, 1878. Prof. Babington writes: "Not *Briggsii*, according to my idea; but goes to the typical form of *C. officinalis* = *mentifolia* of Lindlat." Mr. Baker and Dr. Boswell accept it as *Briggsii*.

Nepeta Glechoma, Benth., b. *parviflora*, Benth. From the bank of the canal at Leamington, 4th June, 1879. Mr. Baker says "this is a long-styled form with short stamens; like *Thymus* and *Calamintha*, it is more or less dimorphic."

Utricularia neglecta, Lehm. Mr. F. J. Hanbury sends a supply from dykes in Ham Ponds, Kent, June, 1878. Dr. Boswell says that these specimens show that Reichenbach's character of the leaves not being bristly is erroneous.

Rumex crispus, L., b. *elongatus*. Sent by Rev. Augustin Ley from tidal banks, Tinterne, Monmouthshire, 13th September, 1879.

Rumex, hybrid between *pulcher* and *conglomeratus*? Sent by Mr. T. R. Archer Briggs, thus named, from road-side, Swilly, near Plymouth, South Devon, 4th August, 1879. Dr. Boswell says: "This seems the same as a plant which I raised from Mr. Briggs's seed, and which I have cultivated for many years at Balmuto, where very few fruits ripen. Among the plants raised from the seed of the original specimen there are considerable differences, some of them inclining towards *pulcher*, and some of them towards *conglomeratus*. I have no doubt about its being a hybrid between these two."

Rumex, hybrid between *conglomeratus* and *pulcher*, from Lewes, Sussex, September, 1879. Sent by Mr. J. H. A. Jenner, with the note that "the Hon. J. L. Warren confirms my naming. Both *pulcher* and *conglomeratus* grew on the spot. I could get no root leaves." Dr. Boswell believes this is "rightly named, though it is nearer *pulcher* than any of my seedlings from the Devon plant." Mr. T. R. Archer Briggs says that, "had not Mr. Warren confirmed the naming, I might have been disposed to suspect the specimen to be only depauperized *pulcher*, especially as the branches have sprung, late in the season, from a stem previously cut or broken off. It is much more like *pulcher* than Plymouth examples from Swilly, presumed to be hybrids between *conglomeratus* and this species."

Polygonum aviculare, L., d. *microspermum*, Jord. Sent by Mr. A. Bennett, from Mitcham Common, near Croydon, Surrey, September, 1879, "for Dr. Boswell's opinion, as it seems the 3rd Ed. Eng. Bot. plant may not be the true plant of Jordan." Dr. Boswell would certainly give it this name.

Polygonum aviculare, L., e. *rurivagum*, Jord. Mr. W. H. Beeby sends a very dwarf form of this variety from Earlswood Common, Surrey, 14th September, 1879, with the note that he "at first supposed this to be *microspermum*; but Mr. Watson considers it to be probably a starved state of *rurivagum*. It is abundant on Earlswood Common and Reigate Heath, and in appearance differs from *rurivagum* in its dwarf and prostrate habit." Upon this plant Dr. Boswell writes: "I think this should rather be called var. *humifusum*, Jord.

It is the only form of *P. rurivagum* that I have seen here, where the upright plant, with rather large bright red perianths, which is so common in sandy ground about London, does not occur."

Polygonum Persicaria, L., var. *P. laxum*, Reich. Sent by Mr. J. G. Baker from Kew, Surrey, August, 1878. Prof. Babington thinks this to be *P. biforme*, Wahl. Dr. Boswell's opinion is that it is certainly *P. Persicaria*, var. *elatum*, G. and G., E. B., ed. iii.

Polygonum maculatum, Trimen and Dyer, var. *laxum*. Sent by Mr. J. G. Baker from Kew, Surrey, August, 1878; also var. *densum*, from the same locality. Prof. Babington remarks: "Is not this also *P. biforme?* Also the supposed *densum*." Dr. Boswell says it is *maculatum* without doubt—i.e., *P. nodosum* and *P. laxum*, Reichenb.

Euphorbia Cyparissias, Linn. Sent by Dr. Eyre de Crespigny from a chalky slope near Dover, Kent, June, 1879. Prof. Babington thinks it is *E. Esula.*

Ceratophyllum demersum, L. From Westminster Mill Pond, Newport, Isle of Wight, November, 1879. Sent by Mr. Fred. Stratton.

Ceratophyllum submersum, L. Mr. H. Groves sends this species from a salt marsh ditch, near Shorne, West Kent, 3rd August, 1878.

Ulmus montana, Sm. c. *nitida.* Sent by Rev. Augustin Ley from planted trees, Poulstone, Herefordshire, 30th October, 1876, and 19th March, 1877.

Salix ferruginea, Anders., b. *rugosa.* Sent by Mr. H. Bromwich from Kenilworth, Warwickshire, September, 1878. The name *rugosa* confirmed by Mr. Baker and Dr. Boswell.

Salix Lapponum, var. *pseudo-glauca?* A single specimen of a male plant sent by Mrs. Elizabeth A. Lomax from between Lochs Callater and Muick, 1st August, 1879.

Arum italicum Mill. Sent by Mr. James Cunnack from Chyanhale, near Helston, July, 1877. Dr. Boswell pronounces this the true plant, with white-veined leaves.

Potamogeton polygonifolius, Pourr. A single plant from a mountain stream, Moel y parc, near Caerwys, Flintshire, 4th September, 1879. Sent by Mr. J. Harbord Lewis, as apparently new to the county. Mr. Charles Bailey sends a narrow-leaved form of what he takes to be the variety b. *pseudo-fluitans*, E.B., from the outlet of Cwm Bwchan lake, near Harlech, 18th September, 1879; Professor Babington thinks this name quite probable, but not certain.

Potamogeton heterophyllus, Schreb. Mr. A. Bennett sends a single plant from the canal between Woking and Weybridge, Surrey, with stolons from the axils of the upper leaves. (See Dr. Boswell's remarks upon this character, in *P. nitens*, E.B., 3rd ed., vol. 9, p. 37.)

Potamogeton Zizii, Mer. and Koch. Mr. Andrew Brotherston sends a further supply from Cauldshiels Loch, Melrose, Roxburgh, 9th August, 1879, to show the difference in general appearance which the same species exhibits from the influence of two different kinds of seasons. Mr Brotherston mentions that the specimens sent to the Club last year (see Report for 1878, p. 19) "were smaller, more compact and firmer in texture, not drawn out like those of 1879. Mr. Baker remarks, in last Report, 'That *P. Zizii* appears to be a large deep-water form of *P. heterophyllus*,' &c. So far as I have seen, *Zizii*

invariably grows near the edge of the loch, in comparatively shallow water. The specimens gathered in 1878 were growing in water less than one foot deep, in 1879 about two feet. I have seen type *heterophyllus* in deeper water at Coldingham Loch, Berwick. *P. prælongus* and *P. crispus*, both of which occur in Cauldshiels Loch, prefer the deeper parts, as neither are visible from the side, but very long specimens of both are frequently washed ashore."

Potamogeton prælongus, Wulf.? Plentiful in the canal at Navan, County Meath, growing with *Œnanthe fluviatilis*, Colem, 15th September, 1879. Sent by Mr. Charles Bailey. Not recorded for district 5 in Cybele Hibernica. Professor Babington writes: "I much doubt this, the tips of the leaves are quite different. Is it not *decipiens?*" This is the locality where Mr. Bailey collected *P. decipiens*, Nolte, as recorded in Ex. Club Report for 1879, p. 15. In the River Boyne, which runs parallel with the canal at this point, occurs the *P. Lonchitis*, Tucker., but he failed to collect any, as the river was in flood; nevertheless, green plants were found drifted on to the overhanging bushes.

Potamogeton mucronatus, Schrad. Mr. W. H. Beeby sends this species from the Great Pond, Gatton Park, Surrey, 4th August, 1879. Dr. Boswell says it is a good sample of the plant, if it had not been without fruit.

Potamogeton pectinatus, L. Mr. W. B. Waterfall sends this from brackish ponds and ditches, Shirehampton Marshes, Bristol, West Gloucestershire, 4th August, 1879. Dr. Boswell and Mr. T. R. Archer Briggs name it var. *scoparius*.

Ruppia spiralis, Hartm. Dr. R. L. Baker sends a supply from Walton-on-the-Naze, Essex, June, 1879. Mr. J. Groves sends typical specimens from a saltmarsh ditch near Newton, Isle of Wight, 17th September, 1879. Professor Babington thinks the plants from both stations "are *spiralis*, i.e., *marina*, L."

Alisma Plantago, Linn., b. *lanceolatum*. From the margin of a stream, Ashley Down, Bristol, West Gloucestershire, July, 1879. Sent by Mr. W. B. Waterfall. Kew specimens were noticed in the Exchange Club Report, 1868, p. 15.

Spiranthes æstivalis, Rich. Mr. A. Bennett sends this from near Lyndhurst, on the Christchurch road, but not the original locality; collected by Mr. D. Marquand, August, 1879. See Exchange Club Report, 1872-4, p. 42.

Allium Ampeloprasum, L. var. b., *bulbiferum*. Sent by Mr. Jas. Cunnack from Poltesco, near the Lizard, August, 1879. The station seems to be the same as that recorded in the E. C. Report, 1872-4, p. 42, but as many of the specimens had heads with projecting pedicels, selected examples, with this character, were submitted to Prof. Babington and Dr. Boswell. Prof. Babington writes:—"I consider this to be *Allium Babingtonii*, which seems to me, as it did to Mr. Borrer, quite a distinct species. I have had it and *A. Ampeloprasum* in cultivation for many years. I have only seen *A. Ampeloprasum* with head bulbs from Guernsey: no *A. Ampeloprasum* at all from Cornwall." Dr. Boswell would also name the plant submitted to him *Babingtonii*.

Luzula pilosa, Willd., b. *Borreri*, Woods. Sent by Rev. Augustin Ley from the woods Wyndcliff, Monmouthshire, 25th June,

1879. Mr. JAMES CUNNACK also sends a plant, similarly named, from Constantine, near Helston, July, 1879, with fully formed seeds, which Mr. T. R. Archer Briggs says is the type form of *L. pilosa*. Dr. Boswell also names it ordinary *pilosa*.

Scirpus fluitans, L. Sent by Mr. W. H. BEEBY from a pool adjoining Hedge Court Mill Pond, Surrey, 28th September, 1879, to show the totally submerged state. "The pool in which the plant grew was clear and deep, and apparently a spring."

Carex vulpina L. b. *nemorosa*, Rebentisch. Mr. G. C. DRUCE sends a plant named *C. nemorosa*, Rebent., from Fotheringay, Northamptonshire, July, 1879. It is the plant figured in Reichenbach's "Icones Floræ Germanicæ," Vol. VIII, Tab. CCXVI, 563, and is separated from typical *vulpina* by the following characters:—"gracilior, pallidior, spicæ minores remotiusculæ, bracteæ spiculas inferiores excedentes setaceæ." Prof. Babington reports:—"I have similar specimens, and have marked one of them as *nemorosa*. Boott figures it from Battersea fields, and does not consider it as worthy of distinction as a variety. I quite agree with him."

Carex Bœnninghauseniana, Weihe. Sent by Mr. T. R. ARCHER BRIGGS from a drain below a hedgebank, between Caton and Penquit, South Devon, 18th July, 1879.

Carex ovalis, Good. var. *bracteata*. Mr. W. H. BEEBY sends this variety from Pease Marsh, Godalming, Surrey, 24th August, 1879. Prof. Babington says:—"I have this from Hampshire, Mr. Townsend. Surely not worthy of notice as a variety."

Carex flava, L., var. *argillacea*, Townsend. Mr. F. TOWNSEND sends a plant thus named, which flowers twice a year, from Parkhurst Forest, Isle of Wight, 1st to 10th September, 1879. Dr. Boswell calls it a luxuriant form of *C. lepidocarpa*.

Aira cæspitosa, Linn. b. *brevifolia*, Parnell. Sent by Dr. R. L. BAKER and Dr. J. FRASER, from Whitnash, Warwickshire, July, 1879, and Dr. Fraser also sends it from two localities in Staffordshire, Penn Common, 1st September, 1879, and Oakamoor, 12th August, 1879. Mr. Baker writes:—"Mr. Nicholson looked at Parnell's type at the Linnean Society, the other day, and repudiates these. The true plant has a shorter stiffer panicle and larger florets."

Poa glauca, Smith? One specimen sent by Mr. A. BENNETT from a "root received from Mr. Mitten, under the name of *Poa glauca*, Sm., with the information that it came from Snowdon, Wales. As Dr. Boswell speaks somewhat doubtfully as to Snowdon, it may be of use sending this unless it is only *nemoralis* montane form." Dr. Boswell says:—"I would call this *P. nemoralis* var. *glaucanthus* Reich, E. B., Ed. iii, not *P. glauca* Smith, but I should much like to have a plant to cultivate."

Poa nemoralis, b. *Parnellii*. Sent by Mr. J. P. SOUTTER from basaltic rocks, High Force, Teesdale, South Durham, 2nd August, 1879. Prof. Babington thinks it may be the plant, but the specimens are not satisfactory.

Festuca ambigua, Le Gall. (*Vulpia ciliata* Link, var. *glabra*). Sent by Mr. A. BENNETT as additional to Vice-County 26, from Thetford Heath, West Suffolk, July, 1879. In sandy banks, growing with *Veronica verna* and *Medicago minima*.

Festuca arenaria, Godron, *glabrescens*. Dr. Boswell sends a rock form from Burntisland, Fife, June, 1879. Prof. Babington would call these specimens *rubra*. "I may repeat my remark that the name *arenaria* cannot stand" (see Man., p. 430). Dr. Boswell also names *glabrescens*, or *oraria* as Prof. Babington considers it ought to be called, a plant sent by Mr. J. Harbord Lewis, from Wallasley, Cheshire, July, 1879. Dr. Boswell similarly names a plant sent by Rev. Augustin Ley from sea cliffs, near Cawsand, East Cornwall, 9th July, 1878; Mr. Baker agrees.

Bromus asper, Murr., b. *Benekenii*. Cultivated specimens from a root from Eaton Bishop, Herefordshire, and wild specimens from woods on limestone, Downton, Herefordshire, 6th July, 1878, are sent by Rev. Augustin Ley. See Ex. Cl. Report, 1877–8, p. 20. Dr. Boswell would call the plant from Eaton Bishop "var. *serotinus*, making a first step towards *Benekenii;* and that from Downton, Herefordshire, is a good deal nearer, but not exactly, the plant I understand as *Benekenii*."

Bromus mollis, L. var. Sent by Mr. George Nicholson from the banks of the Thames, Mortlake, Surrey, July, 1879, with the following note:—"A number of plants of this peculiar form were collected by me on the bank of the Thames at Mortlake. In its habit, and the compact narrow panicle with sessile or nearly sessile spikelets, it comes near to *Bromus hordeaceus*, Fries. From this, however (with authentic specimens of which I have compared it), it differs in being quite as hairy as ordinary *mollis*, and not glabrous, or nearly glabrous, as in Fries's plant."

Nephrodium Filix-Mas, Rich., b. *affine*. Sent by Rev. Augustin Ley, from near Little Dean, West Gloucester, June 7, 1876, and by Mr. George Nicholson, from the Queen's Cottage Grounds, Kew, Surrey, July, 1879.

Nephrodium dilatatum, Desv., var. *lepidotum*, Moore. Cultivated specimens from Kew, Surrey, 21st July, 1879, sent by Mr. George Nicholson. Prof. Babington sends the following note: "If this is the true *Lastrea lepidota* of Moore (Ferns, ed. iii., p. 136), it can hardly be a variety of *L. dilatata*. Indeed, he thought it distinct, and doubted its being a native fern."

Ophioglossum vulgatum, L., b. *ambiguum*, Coss. and Germ. A few specimens only were collected by Mr. Charles Bailey, 21st July, 1879, in the damp sandy ground at the foot of the sandhills, on the land side, one mile west of Dyffryn railway station, between Harlech and Barmouth, Merionethshire. It is figured on plate 46 of Sir William Hooker's "British Ferns," and the Welsh specimens agree well with this figure, though generally smaller in size. The variety *ambiguum* was originally detected more than twenty years ago in the neighbourhood of Paris, and was found, shortly afterwards, in one of the numerous "laiches" at Arcachon. It was first noticed as a British plant by Dr. J. T. Boswell, who detected it in the Orkney Islands; and Mr. Curnow has recently distributed Scilly Islands specimens through the Club. The Dyffryn locality is, therefore, a connecting link between the extreme stations of western Europe, from the Orkneys in the north to Arcachon in the south. M. Durieu de Maisonneuve finds a separating character between *O. vulgatum*

and *O. Luisitanicum* in the surface of the spores, which are tuberculated in the former and smooth in the latter. The spores of the Dyffryn plants are, for their size, rather coarsely reticulated, and not tuberculated. See Ex. Club Reports, 1870, p. 18, and 1877–8, p. 20. Mr. Baker and Dr. Boswell confirm the name. A single specimen sent by Mr. H. Halcro Johnston, from a new station in Orkney, the fifth station now known in that island. It was collected 28th July, 1879, in a pasture at the top of crags at the sea shore, at the north-west end of the Calf of Cava.

Chara syncarpa, Thuil. Mrs. Elizabeth A. Lomax sends a few specimens, thus named, from a stagnant pond, Braemar, July, 1879. Prof. Babington is doubtful whether this is *capitata* or *opaca*, probably the latter.

Tolypella glomerata, A. Br. From a ditch, Plumstead Marshes, West Kent, 1st May, 1879. Sent by Mr. H. Groves.

Chara hispida, L. Sent by Mr. W. H. Beeby, from the Great Pond, Gatton Park, Surrey, 4th August, 1879; and by Mr. J. Groves, from a pond near Bromley, West Kent, 29th June, 1878.

EXCLUDED SPECIES, AND CASUAL INTRODUCTIONS.

Lavatera punctata, All. One specimen sent by Mr. J. H. A. Jenner, with the note that "this plant has grown in very small quantity (only one or two plants) on a disused railway bank at Lewes, for three or four years.

Herniaria hirsuta, L. Sent by Mr. F. Townsend, from waste ground (sand) at Christchurch, Hampshire, 19th July, 1879. Considered by Prof. Babington "a very interesting discovery of Mr. Townsend's. He thinks that it is indigenous."

Centranthus Calcitrapa, Dufr. From an old wall, Eltham, Kent, August, 1879. Sent by Dr. Eyre de Crespigny.

Scabiosa atropurpurea, L. Sent by Mr. J. H. A. Jenner, from a bank at Seaford, Sussex, perfectly established, July, 1879; and by Rev. E. F. Linton, from a cemetery at Yarmouth, 7th August, 1879, self-sown, and growing in fair quantity.

Ambrosia artemisifolia. Weed in garden, Lewes, Sussex, July, 1877. Mr. J. H. A. Jenner.

Anthemis tinctoria, L. Waste ground, Lewes, Sussex, July, 1877. Mr. J. H. A. Jenner.

Symphytum asperrimum, Sims. Dr. Boswell sends cultivated specimens of this species, July, 1879, with the following note:— "I have examples from Bath, collected by Mr. French more than 30 years ago, but it appears to be extinct there now; though the dubious plant *S. uplandicum* Nyman, or *S. peregrinum* Baker, still grows there."

Symphytum "peregrinum, Ledeb.?" Baker. *S. uplandicum* Nymen, *S. orientale*, Fries. (non. Linn). *S. Donii*, DC.? Dr. Boswell sends cultivated specimens of this plant from Balmuto, July,

1879, with the following remarks :—"Mr. Baker supposes this to be a garden hybrid, between *S. asperrimum* and *S. officinale*, between which it is intermediate, though much nearer *S. asperrimum* in everything except the shape of the limb of the corolla, which is that of *S. officinale*; it is no doubt from this that Prof. Babington thinks it may be a luxuriant form of *S. officinale*. It is quite as tall and robust as *S. asperrimum* (or even more so), and young plants of it come up like weeds in the garden. The calyx is but little more deeply divided than that of *S. asperrimum*, though the divisions are more acute. In both plants they elongate after flowering. The bristles on the stem are less like prickles, but the so-called white tubercles, on which they are seated, become apparent only when dry, and are smaller than in *S. asperrimum*, in which they are equally green while the plant is alive. It seems to agree better with De Candolle's description of *S. Donii* than with his, or Ledebour's description of *S. peregrinum*, as the stem leaves, especially the upper ones, are shortly decurrent."

Symphytum Tauricum, Willd., and *Lamium maculatum*, L. Established in enclosed ground between Warwick and Leamington, Warwickshire, 4th June, 1879. Sent by Mr. C. Bailey, the station being pointed out to him by Dr. Baker and Mr. Bromwich.

Linaria purpurea. Sub-spontaneous on an old garden wall, Bishop's Oak, Wolsingham, South Durham. Mr. J. P. Soutter.

Rumex scutatus. Cottage Garden Wall, Maidstone, E. Kent, 3rd August, 1879. Sent by Mr. W. H. Beeby.

Calceolaria glutinosa, Heer and Regel. Sent by Rev. E. F. Linton "as an annual coming up of itself each year in a garden at Heigham, near Norwich, October, 1879."

Briza maxima, L., Jersey, June, 1879. Sent by Mr. J. Cosmo Melvill with the following note :—"This conspicuous grass, a native, especially, of the South of France and Italy, is rapidly extending itself in all parts of Jersey. The late Dr. M. M. Bull informed me in June, that several years had elapsed since he first noticed it in the island, but I am not aware that, till now, public notice has been taken of it. I found it most abundant at La Haule, near the station for the now almost extinct *Ranunculus chærophyllos*, and also at Plemont, North Jersey, and in St. Saviour's Parish. It has not yet been noticed in Guernsey or Sark." Prof. Babington remarks that "the Rev. A. M. Norman mentions this plant as seen in the Channel Islands, in 1859, Phytol, Ser. 2, iii, 304. He gives no locality nor particulars."

Poa serotina, Ehrt., with more branches on lower parts of panicle than usual. Naturalized on the bank of the Thames, Kew, Surrey, 30th June, 1879. Sent by Mr. George Nicholson with the following note :—"There was a considerable quantity of this species on banks of Thames at Kew and Mortlake last year, and there seems every probability of its retaining its hold. As a species it comes very near *P. nemoralis*, L. Considering that it is a native of many countries of continental Europe, and that it is also found in North America, it does not seem improbable that it may occur in a wild state in Britain."

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